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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,449	06/13/2001	Joseph Robert Stetter		5183

7590 11/29/2005
Solomon ZAROMB
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EXAMINER

SNAY, JEFFREY R

ART UNIT PAPER NUMBER

1743

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,449

Applicant(s)

STETTER ET AL.

Examiner

Jeffrey R. Snay

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 15-26 and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 27-30112 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 and 27-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 invokes 35 USC 112, sixth paragraph, by reciting a "means for applying interrogating signals ..., measuring impedance signals ..., and converting the resulting signals into impedance patterns." However, the specification fails to disclose any structural elements by which all three of the recited functions would be accomplished. Because means plus function recitation requires that the claim be limited to that structure disclosed in the specification, and any functional equivalents, the omission of any such structure from the disclosure renders the claim of indeterminate scope.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 8-14 and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Tartagni et al.

Tartagni et al discloses a capacitive sensor which anticipates all the presently recited limitations. Indeed, Applicant states at page 5 of the specification that the present invention differs from the Tartagni et al device only by the presence of conductive material at the inert layer (which conductive material is not claimed and appears to depict merely the substance measured during use). In any event, the device of Tartagni et al includes an array of impedance electrode elements (23, 24), covered by a dielectric layer (25). Circuitry means are disclosed for interrogating the electrode elements, receiving signals therefrom, and converting the signals into a visual image of the sensed impedance pattern. See e.g. Figure 5. The dielectric covering layer can be formed from materials including glass, silicon nitride and silicon dioxide (column 8, lines 35-41). At least two channels of information are acquired (see Figure 1).

Regarding instant claims 5, 8, 10-14 and 27-30, it is noted that these claims recited intended uses or capabilities of the device without further reciting any structural limitations not already present in the parent claims. As such, these claims are fully anticipated by Tartagni et al for the same reasons applied to the parent claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1743

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tartagni et al in view of Stetter et al.

The device of Tartagni et al, as described above, differs from the claimed invention in that it fails to include a specific binding member disposed at the sensor surface. However, Stetter et al teach the application of such specific binding members on the surface of an impedance based sensor in order to enable detection of immunological binding events. It would have been obvious to one of ordinary skill in the

art to so modify the surface of the Tartagni et al device in order to expand its utility to include immunological analysis, as per the teaching of Stetter et al.

Response to Arguments

9. Applicant's arguments filed 09-09-04 have been fully considered but they are not persuasive.

Applicant traverses the rejection under 35 U.S.C. 112, second paragraph, by pointing to various disclosures in the specification that purportedly "disclose all the features of claim 1." (Applicant's remarks at p. 2). However, none of the referenced parts of the specification disclose any structure by which the means recited in claim 1 would accomplish the associated functions. Applicant has invoked 35 U.S.C. § 112, sixth paragraph, but failed to provide the requisite corresponding structure.

Applicant further argues that the limitation added to claim 1, requiring an outer surface that is "amenable to the attachment of active elements." No special definition is provided by applicant for the term "amenable," and is construed by the examiner as meaning only that attachment of elements is not positively foreclosed. Nothing in the prior art reference positively forecloses the attachment of elements to the surface, and the instant claim limitation is thus satisfied.

Finally, applicant alleges unexpected results. However, applicant has provided absolutely no evidence that any particular result achieved by the claimed invention was

unexpected. As such, the argument is not persuasive to overcome the strong evidence of obviousness proffered by Tartagni et al and Stetter et al.


10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Snay whose telephone number is (571) 272-1264. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey R. Snay
Primary Examiner
Art Unit 1743

jrs